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Between sorrow and happiness

On the 17th of April 2007, Kamal El-Din M. El-Hennawy departed our world. He was a poet, a defender, a revolutionist, and self-educated scientist. His English-Arabic “Medical terms dictionary” (1978) and “Biological terms dictionary” (1990) are still appreciated by Arab universities. He supported *SERKET* since the beginning of the idea. In August 2007, *SERKET* sadly celebrated its 20th anniversary without him.



Kamal El-Din M. El-Hennawy (1995)

12 January 1920 - 17 April 2007

Seek out—less often sought than found-
A soldier's grave, for thee the best;
Then look around, and choose thy ground,
And take thy rest.

(Lord Byron - On this day I complete my thirty-sixth year)

In February 2007, the Turkish Arachnological Society was founded. The first issue of its journal, *Turkish Journal of Arachnology*, is ready for publication these days. Tebrik - Congratulations !

Thus, arachnological activities continue between sorrow for those who departed and happiness for new born publications and more fruitful scientific activities in the field of arachnology.

The Editor

Some harvestmen records (Arachnida: Opiliones) from Niğde Province of Turkey

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Abstract

Four species of order Opiliones, *Homolophus funestus* L. Koch, 1877, *Oligolophus hansenii* (Kraepelin, 1896), *Oligolophus tridens* (C.L. Koch, 1836) and *Opilio redikorzevi* Roewer, 1956 are recorded for the first time from Turkey. The characteristic body parts of these species, and *Phalangium punctipes* (L. Koch, 1878), are measured and illustrated, and data of their distribution are given. These records increase the number of opilionids in Turkey to 33 species.

Keywords: Arachnida, Opiliones, New records, Turkey.

Introduction

Opiliones are commonly called shepherd spiders, harvest spiders or harvestmen. They have round bulbous bodies and very long legs. Their cryptic colouration affords protection from predators. They are usually able to repel their attackers with a repugnant secretion from odiferous glands. They are normally active during the night. Harvestmen feed on a wide variety of creatures, including small insects and other invertebrates, dead animals and plants. They can be found in a wide variety of habitats, including forests, brushy areas, open grasslands and even disturbed areas. Both Turkish and foreign researches made some important contributions to the Turkish harvestmen fauna. Up to now, 6125 species of 1638 genera of Opiliones have been described in the world (Hallan, 2005). There are only 29 species known from Turkey (Kulczyński, 1903; Nosek, 1905; Roewer, 1959; Gruber, 1968, 1969, 1976, 1979, 1998; Chevrizov, 1979; Bayram, 1994; Snegovaya, 1999; Bayram *et al.*, 2005; Bayram & Çorak, 2007; Çorak & Bayram, 2007). In this study, four species of Family Phalangidae Latreille, 1802 are recorded for the first time from Turkey. The characteristic body parts of these species, and *Phalangium punctipes* (L. Koch, 1878), are measured and illustrated, and data on their distribution are given. With these records, the number of opilionids in Turkey has increased to 33 species.

Material and Methods

This study was carried out in different periods between April and September 2002-2004 in Niğde. Examined specimens were preserved in 70% ethanol and deposited in the Arachnology Museum of Niğde University (NUAM). The identification was made with a ZX61 Olympus stereomicroscope. Identification references consulted are: Chevrizov (1979) and Babaşoğlu (1999). All measurements are in millimetres.

Abbreviations used: AL = abdominal portion length, Bs = basal segment, CL = carapace length, Ds = distal segment, F = femur, M = metatarsus, P = patella, Ti = tibia, TL = total length, Tr = tarsus.

Results

Homolophus funestus L. Koch, 1877 (Figs.1-2)

Material examined. Turkey: Niğde province: 1♀, Ulukışla, 37°33'N, 34°28'E, 25.08.2003; 1♀, Fertek, Özbelde, 37°58'N, 34°39'E, 06.06.2003; 3♀♀, Kemerhisar, 37°49'N, 34°34'E, 29.09.2003; 1♀, Çamardı, 34°49'N, 34°59'E, 23.05.2003; 1♀, Bor, 37°53'N, 34°33'E, 17.08.2003; 3♀♀, Altunhisar, 37°59'N, 34°22'E, 17.05.2003.

Measurements. Female. Dorsal scutum: CL 2.3, AL 3.7; Chelicera: Bs 0.8, Ds 2.2. Pedipalp [TL (F+P+Ti+Tr)]: 6.3 (1.7+0.8+1.1+2.7); Legs [TL (F+P+Ti+M+Tr)]: I 14.6 (3.0+1.0+2.4+2.3+5.9), II 19.3 (4.3+1.6+3.9+3.3+6.2), III 15.1 (2.5+1.1+2.3+3.0+6.2), IV 22.7 (4.0+1.5+3.3+5.4+8.5).

Habitat: The specimens were collected from stony and meadow places.

World distribution: Siberia, Mongolia (Hallan, 2005).

Oligolophus hanseni (Kraepelin, 1896) (Figs.3-4)

Material examined. Turkey: Niğde province: 1♀, Özbelde, 37°58'N, 34°39'E, 27.05.2004; 1♀, Fertek, 37°58'N, 34°37'E, 29.09.2004; 2♀♀, Gümüşler, 37°59'N, 34°46'E, 22.08.2003; 1♀, Uluğaç, 38°25'N, 34°50'E, 26.08.2004.

Measurements. Female. Dorsal scutum: CL 2.0, AL 4.0; Chelicera: Bs 0.8, Ds 2.0. Pedipalp [TL (F+P+Ti+Tr)]: 4.0 (1.2+0.5+0.7+1.6); Legs [TL (F+P+Ti+M+Tr)]: I 14.6 (2.2+0.9+2.5+2.6+6.4), II 23.8 (4.4+1.4+4.2+3.8+10.0), III 16.1 (3.6+1.0+2.5+3.2+5.8), IV 22.3 (4.5+1.2+3.7+4.9+8.0).

Habitat: The specimens were collected from tree trunks and meadows.

World distribution: Belgium, Netherlands, Sweden, Germany, Czech Republic, Poland, (Blick & Komposch, 2004; Hallan, 2005; Stol, 2007).

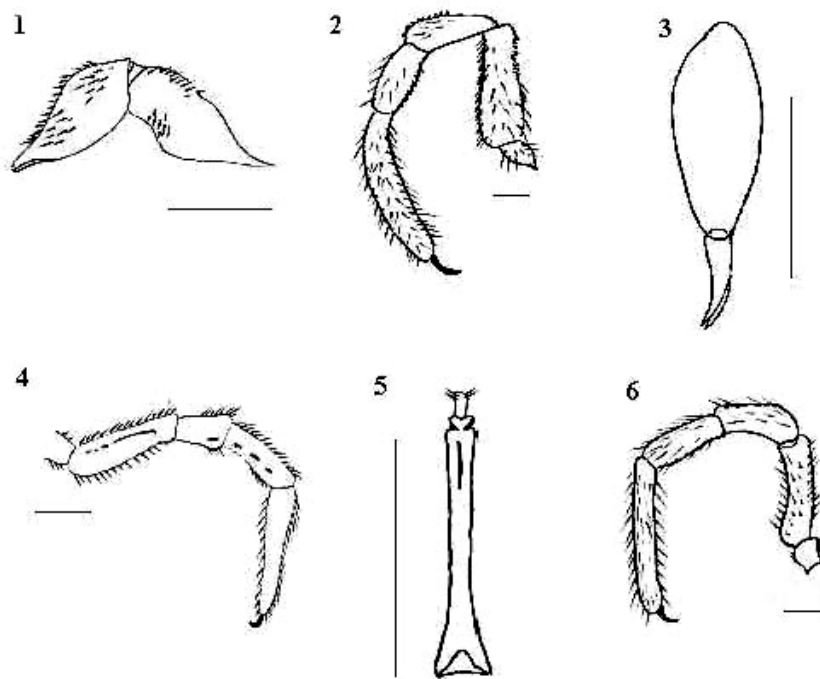
Oligolophus tridens (C.L. Koch, 1836) (Figs.5-6)

Material examined. Turkey: Niğde province: 1♂, Fertek, 37°58'N, 34°37'E, 27.05.2004; 2♂♂, Kayaardı, 37°58'N, 34°39'E, 13.03.1996; 1♂, Altunhisar, 37°59'N, 34°22'E, 25.06.2003; 2♂♂, Ulukışla, 37°33'N, 34°28'E, 07.06.2003.

Measurements. Female. Dorsal scutum: CL 2.1, AL 5.7; Chelicera: Bs 1.0, Ds 2.3. Pedipalp [TL (F+P+Ti+Tr)]: 5.5 (1.5+0.7+1.1+2.2); Legs [TL (F+P+Ti+M+Tr)]: I 13.0 (2.5+1.1+2.0+2.4+5.0), II 21.6 (4.4+1.4+3.3+2.9+9.6), III 12.9 (2.6+1.1+2.0+2.5+4.7), IV 20.5 (4.1+1.3+2.8+4.3+8.0).

Habitat: The specimens were collected from meadow places.

World distribution: Belgium, Netherlands, Denmark, Norway, Sweden, Germany, Switzerland, Austria, Czech Republic, Hungaria, Slovakia, Poland, Slovenia, Iceland, Finland (Blick & Komposch, 2004; Hallan, 2005; Stol, 2007).



Figs.1-6: *Homolophus funestus* (♀). 1. pedipalp, 2. chelicera. *Oligolophus hansenii* (♀). 3. distal segment of chelicera, 4. pedipalp. *Oligolophus tridens* (♂). 5. penis, 6. pedipalp. Scales: 0.5 mm.

***Opilio redikorzevi* Roewer, 1956 (Figs.7-9)**

Material examined. Turkey: Niğde province: 2♂♂, Kayaardı, 37°58'N, 34°39'E, 13.03.1996; 1♂, Kemerhisar, 37°49'N, 34°34'E, 01.07.2003; 1♂, Altunhisar, 37°59'N, 34°22'E, 05.06.2003; 1♂, Çiftlik, 38°10'N, 34°29'E, 11.05.2003; 1♂, Gölcük, 38°13'N, 34°46'E, 13.08.2003; 1♂ Bor, 37°53'N, 34°33'E, 09.06.2003.

Measurements. Male. Dorsal scutum: CL 2.5, AL 3.8; Chelicera: Bs 1.0, Ds 2.3. Pedipalp [TL (F+P+Ti+Tr)]: 5.4 (1.4+0.5+1.1+2.4); Legs [TL (F+P+Ti+M+Tr)]: I 14.5 (2.7+0.9+2.7+3.0+5.2), II 24.9 (4.4+1.6+4.0+3.9+11.0), III 16.5 (2.6+1.0+2.5+3.7+6.7), IV 24.3 (4.3+1.5+3.6+5.9+9.0).

Habitat: The specimens were collected from stony places and bare soil zones.

World distribution: Caucasus (Hallan, 2005).

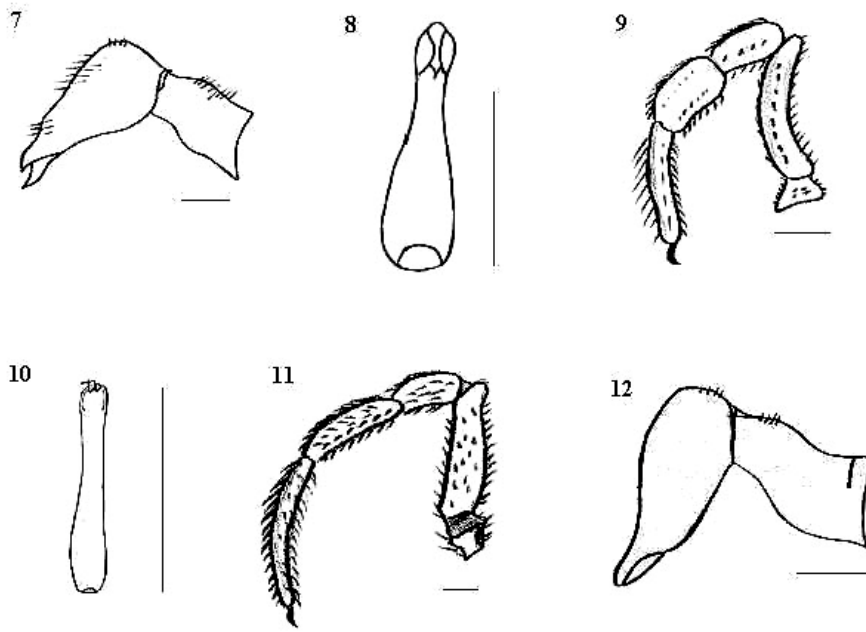
***Phalangium punctipes* (L. Koch, 1878) (Figs.10-12)**

Material examined. Turkey: Niğde province: 2♂♂, Ulukışla, 37°33'N, 34°28'E, 11.06.2003; 1♂, Bor, 37°53'N, 34°33'E, 19.05.2004.

Measurements. Male. Dorsal scutum: CL 1.8, AL 3.0; Chelicera: Bs 1.1, Ds 1.6. Pedipalp [TL (F+P+Ti+Tr)]: 13.7 (4.0+1.1+2.6+6.0); Legs [TL (F+P+Ti+M+Tr)]: I 20.8 (4.1+1.0+3.9+4.3+7.5), II 30.8 (5.8+1.3+5.0+6.1+12.6), III 21.2 (3.1+0.9+3.4+5.4+8.4), IV 29.7 (5.4+1.0+4.6+7.7+11.0).

Habitat: The specimens were collected from meadow places.

World distribution: Armenia, Congo, Turkestan, Crimea, Syria, Cyprus, Caucasus, Cuba (Hallan, 2005).



Figs. 7-12: *Opilio redikorzevi* (♂). 7. chelicera, 8. penis, 9. pedipalp.
Phalangium punctipes (♂). 10. penis, 11. pedipalp, 12. chelicera. Scales: 0.5 mm.

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An updated checklist of the Philodromidae (Araneae) of Turkey with zoogeographical remarks

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Abstract

This updated checklist of Philodromidae of Turkey is based on published and unpublished records available to the author. At present, 27 species belonging to 4 genera of family Philodromidae have been identified in Turkey.

Keywords: Araneae, Philodromidae, Turkey.

Introduction

Arachnological studies of Turkey began towards the end of the 19th century. They were increased during the 20th century, specially faunistic and taxonomic works. Recently, they continue with an increased speed. In the fauna of Turkey, Philodromidae must be regarded as an insufficiently studied family. The first data about Turkish philodromids were published by Pavesi (1876), when he recorded *Thanatus lineatipes* Simon, 1870 from Kadifekale in İzmir. Later, several authors reported some further philodromids from Turkey (Kulczyński, 1903; Nosek, 1905; Roewer, 1959; Karol, 1967). A detailed study of this family was carried out by Muster & Thaler (2004), who described two new species from Turkey, viz. *Philodromus krausi* Muster & Thaler, 2004 and *Philodromus lunatus* Muster & Thaler, 2004. However, the previous works were densely made in central Anatolian region, Black Sea region, and Mediterranean region (Central parts) of Turkey. At present, the fauna of Turkey has not been completely investigated yet. The first list of Turkish spiders (Karol, 1967) included 12 species belonging to 4 genera of family Philodromidae. Thereafter, both Turkish and foreign researchers made important contributions to the Turkish philodromid fauna. They recorded 18 species from Turkey (Bayram, 2002). The most recent checklist by Topçu *et al.* (2005) included 22 philodromid species belonging to 4 genera, most of which are known from a single or just a few localities.

The present checklist is based on all available published and some unpublished records of the distribution of philodromid spiders in Turkey. A total of 27 species of 4 genera from family Philodromidae are recorded in this country.

Material and Methods

The present checklist is mainly based on the data included in “A Checklist of the spiders of Turkey” (Topçu *et al.*, 2005). The checklist of the philodromid fauna of Turkey was compiled using published records and original data. World distribution of all species follows Platnick (2008). Distribution of species in geographical regions of Turkey is summarized in remarks according to Topçu *et al.* (2005) [MR = Marmara, AR = Aegean, MBR = Middle Black Sea, CAR = Central Anatolia, EAR = East Anatolia, MER = Mediterranean, and SAR = Southeast Anatolia Regions]. The present zoogeographical characterization is based on the chorotype classification of Anatolian fauna, recently proposed by Vigna Taglianti *et al.* (1999). In this study, as possible as one chorotype description can be identified for each taxon. But this kind of description can not be possible for some taxa, so one or two chorotypes are used for them. The species which are recorded from only one locality in Turkey are characterised by an asterisk (*).

Results

Family Philodromidae Thorell, 1870

Genus *Paratibellus* Simon, 1932

Paratibellus oblongiusculus (Lucas, 1846)

Records in Turkey: Sivas, Kayseri, Konya (Nosek, 1905); Turkey (Caporiacco, 1935); Mersin (Topçu *et al.*, 2006; Demir *et al.*, 2008); Gaziantep (Özdemir *et al.*, 2006).

Distribution in Turkey: CAR, SAR and MER. **Chorotype:** European + Central Asiatic.

World Distribution: Europe to Central Asia.

Genus *Philodromus* Walckenaer, 1826

Philodromus albidus Kulczyński, 1911

Records in Turkey: Gaziantep (Özdemir *et al.*, 2006; Varol *et al.*, 2006).

Distribution in Turkey: SAR *. **Chorotype:** European.

World Distribution: Western, Central Europe.

Philodromus aureolus (Clerck, 1757)

Records in Turkey: Mersin (Topçu *et al.*, 2005).

Distribution in Turkey: MR. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Philodromus bonneti Karol, 1968

Records in Turkey: Bursa (Karol, 1968).

Distribution in Turkey: MR *. **Chorotype:** Anatolian endemic.

World Distribution: Turkey.

Philodromus buchari Kubcová, 2004

Records in Turkey: Mersin (Muster & Thaler, 2004).

Distribution in Turkey: MER *. **Chorotype:** European.

World Distribution: Europe.

Philodromus cespitum (Walckenaer, 1802)

Records in Turkey: Van (Bayram, 1996b); Bursa (Kaya & Uğurtaş, 2007); Kırıkkale (Bayram *et al.*, 2005).

Distribution in Turkey: CAR, MR, EAR and SAR. **Chorotype:** Holarctic.

World Distribution: Holarctic.

Philodromus collinus C.L. Koch, 1835

Records in Turkey: Bursa, Hatay (Roewer, 1959).

Distribution in Turkey: MR and MER. **Chorotype:** Palearctic.

World Distribution: Europe, Russia.

Philodromus fallax Sundevall, 1833

Records in Turkey: Ankara (Szita & Logunov, 2008).

Distribution in Turkey: CAR *. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Philodromus fuscolimbatus Lucas, 1846

Records in Turkey: Bilecik (Muster & Thaler, 2004).

Distribution in Turkey: MR and MER. **Chorotype:** Turano-Europeo-Mediterranean.

World Distribution: Central Europe to Morocco, Azerbaijan.

Philodromus glaucinus Simon, 1870

Records in Turkey: Balıkesir (Karol, 1966a).

Distribution in Turkey: MR and AR. **Chorotype:** Turano–Mediterranean + North Africa.

World Distribution: Mediterranean to Azerbaijan.

Philodromus histrio (Latreille, 1819)

Records in Turkey: Bitlis (Roewer, 1959); Konya (Bayram & Allahverdi, 1994, 1999); Van (Bayram & Varol, 1996; Bayram *et al.*, 1999); Kırıkkale (Bayram *et al.*, 2005).

Distribution in Turkey: EAR and CAR. **Chorotype:** Holarctic.

World Distribution: Holarctic.

Philodromus krausi Muster & Thaler, 2004

Records in Turkey: Amasya, Kütahya (Muster & Thaler, 2004).

Distribution in Turkey: MBR and AR. **Chorotype:** Anatolian endemic.

World Distribution: Turkey.

Philodromus lividus Simon, 1875

Records in Turkey: Bursa (Kulczyński, 1903).

Distribution in Turkey: MR *. **Chorotype:** Europeo - Mediterranean.

World Distribution: Portugal, France, Morocco, Algeria, Italy, Croatia.

Philodromus longipalpis Simon, 1870

Records in Turkey: Balıkesir (Muster & Thaler, 2004).

Distribution in Turkey: MR *. **Chorotype:** European + Turanian.

World Distribution: Europe, Iran.

Philodromus lunatus Muster & Thaler, 2004

Records in Turkey: İzmir, Konya (Muster & Thaler, 2004).

Distribution in Turkey: AR and CAR. **Chorotype:** Balkano - Anatolian.

World Distribution: Croatia, Greece, Turkey.

Philodromus margaritatus (Clerck, 1757)

Records in Turkey: Gaziantep (Roewer, 1959).

Distribution in Turkey: SAR *. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Philodromus poecilus (Thorell, 1872)

Records in Turkey: Niğde (Nosek, 1905); Ankara (Karol, 1966a).

Distribution in Turkey: CAR. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Philodromus rufus Walckenaer, 1826

Records in Turkey: Mersin (Demir *et al.*, 2008).

Distribution in Turkey: MER *. **Chorotype:** Holarctic.

World Distribution: Holarctic.

Genus *Thanatus* C.L. Koch, 1837

Thanatus atratus Simon, 1875

Records in Turkey: Niğde, Mersin (Demir *et al.*, 2008).

Distribution in Turkey: CAR and MER. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Thanatus formicinus (Clerck, 1757)

Records in Turkey: Van (Bayram, 1996 a, b, c; Bayram & Varol, 1996; Bayram *et al.*, 1999); İzmir, Manisa, Aydın (Bayram *et al.*, 2000); Mersin, Niğde (Topçu *et al.*, 2006; Demir *et al.*, 2008); Kırıkkale (Bayram *et al.*, 2005); Gaziantep (Özdemir *et al.*, 2006; Varol *et al.*, 2006).

Distribution in Turkey: Widely distributed. **Chorotype:** Holarctic.

World Distribution: Holarctic.

Thanatus lineatipes Simon, 1870

Records in Turkey: İzmir (Pavesi, 1876).

Distribution in Turkey: AR *. **Chorotype:** Mediterranean + Caucasian.

World Distribution: Mediterranean, Georgia.

Thanatus okayi Karol, 1966

Records in Turkey: Bursa (Karol, 1966b).

Distribution in Turkey: MR *. **Chorotype:** Anatolian endemic.

World Distribution: Turkey.

Thanatus pictus L. Koch, 1881

Records in Turkey: Kayseri (Nosek, 1905); Turkey (Reimoser, 1919); Gaziantep (Varol *et al.*, 2006).

Distribution in Turkey: CAR. **Chorotype:** Palearctic.

World Distribution: Palearctic.

Thanatus striatus C.L. Koch, 1845

Records in Turkey: Van (Bayram, 1996a); İzmir, Aydın, Manisa (Bayram *et al.*, 2000); Mersin, Niğde (Demir *et al.*, 2008); Kırıkkale (Bayram *et al.*, 2005).

Distribution in Turkey: Widely distributed. **Chorotype:** Holarctic.

World Distribution: Holarctic.

Thanatus vulgaris Simon, 1870

Records in Turkey: Konya, Niğde, Kayseri (Nosek, 1905); Bursa (Giltay, 1932); Ankara (Karol, 1966a); Mersin, Niğde (Topçu *et al.*, 2006; Demir *et al.*, 2008); Gaziantep (Özdemir *et al.*, 2006; Varol *et al.*, 2006).

Distribution in Turkey: Widely distributed. **Chorotype:** Holarctic.

World Distribution: Holarctic.

Genus *Tibellus* Simon, 1875

Tibellus macellus Simon, 1875

Records in Turkey: Mersin, Niğde (Demir *et al.*, 2008).

Distribution in Turkey: MER and CAR. **Chorotype:** European + Central Asiatic.

World Distribution: Europe to Central Asia.

Tibellus oblongus (Walckenaer, 1802)

Records in Turkey: Van (Bayram, 1996b; Bayram & Varol, 1996, 1999; Bayram *et al.*, 1999); Manisa, İzmir, Aydın (Bayram *et al.*, 2000); Denizli (Bayram *et al.*, 1998); Mersin, Niğde (Topçu *et al.*, 2006; Demir *et al.*, 2008).

Distribution in Turkey: Widely distributed. **Chorotype:** Holarctic.

World Distribution: Holarctic.

Zoogeographical Remarks

The majority of philodromid species of Turkey can be classified under two chorotypes, the Palearctic (*Philodromus aureolus*, *P. collinus*, *P. fallax*, *P. margaritatus*, *P. poecilus*, *Thanatus atratus* and *T. pictus*) and the Holarctic (*Philodromus cespitum*, *P. histrio*, *P. rufus*, *Thanatus formicinus*, *T. striatus*, *T. vulgaris* and *Tibellus oblongus*). Three species are Anatolian endemic (*Philodromus bonneti*, *P. krausi* and *Thanatus okayi*). It is apparent that Turkey has continental properties. It has a rich biodiversity. With this study, the number of philodromid spiders in Turkey has increased to 27 species belonging to 4 genera.

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**Distribution of *Androctonus crassicauda* (Olivier, 1807)
and *Buthacus macrocentrus* (Ehrenberg, 1828)
(Scorpiones: Buthidae) in Turkey**

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Abstract

Previous and new distribution records of *Androctonus crassicauda* (Olivier, 1807) and *Buthacus macrocentrus* (Ehrenberg, 1828) in Turkey are presented and discussed. All distribution records of *A. crassicauda* are determined, especially disjunctive distribution records from Kars and Iğdır Province in the eastern part of Turkey. Besides, *B. macrocentrus* was recorded from Turkey for the second time.

Keywords: Distribution, Fauna, Arachnida, Scorpiones, *Androctonus crassicauda*, *Buthacus macrocentrus*, Turkey.

Introduction

Genus *Androctonus* Ehrenberg, 1828 has a widespread distribution in Africa and Asia (Afghanistan, Armenia, Azerbaijan, Bahrain, Egypt (Sinai), India, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Pakistan, Saudi Arabia, Syria, Turkey, United Arab Emirates, Uzbekistan?, Yemen) (Fet & Lowe, 2000; Hendrixson, 2006). There is 15 known species that belong to genus *Androctonus* in this region (Lourenço, 2005; Lourenço & Qi, 2006a, 2007). Genus *Buthacus* Birula, 1908 is also distributed in Africa (Algeria, Chad, Egypt, Eritrea, Libya, Mauritania, Morocco, Niger, Senegal, Sudan, Tunisia) and Asia (Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Pakistan, Saudi Arabia, Syria, Turkey, United Arab Emirates) (Fet & Lowe, 2000; Crucitti & Vignoli, 2002; Kovařík, 2005; Lourenço, 2006; Lourenço & Qi, 2006b). There is 19 species that belong to genus *Buthacus* in this region (Kovařík, 2005; Hendrixson, 2006; Lourenço, 2006; Lourenço & Qi, 2006b). In Turkey, there is only one species of each of the two genera, *Androctonus crassicauda* (Olivier, 1807) and *Buthacus macrocentrus* (Ehrenberg, 1828). The aim of this study is to discuss the distribution of these two species in Turkey, depending on new records in addition to literature records.

Material and Methods

Field studies were achieved during the period between 1st July 2002 and 17th August 2007. The 93 (46 ♀♀, 36 ♂♂, 11 juv.) specimens of *Androctonus crassicauda* (Olivier, 1807) were collected from 35 different localities and the 31 (17 ♀♀, 12 ♂♂, 2 juv.) specimens of *Buthacus macrocentrus* (Ehrenberg, 1828) were collected from 3 different localities. The specimens were found under stones in daytime and at night using UV lamp. The samples were preserved in 70% ethanol and have been deposited in the private collection of Ersen Aydın Yağmur (PCEAY). The specimens were examined by XTL-3400E stereomicroscope.

Results and Discussion

Androctonus crassicauda (Olivier, 1807)

Scorpio crassicauda Olivier, 1807

Type Locality: Kashan, Iran.

Androctonus crassicauda Vachon, 1948

Synonyms:

Buthus crassicauda Simon, 1872

Prionurus crassicauda Pocock, 1895

Buthus (Prionurus) crassicauda Birula, 1896

Buthus (Prionurus) crassicauda crassicauda Birula, 1896

Material examined: **1. Adıyaman:** 1♀. Besni District, Sarıyaprak Village, 03.viii.2006. E.A. Yağmur, M. Yalçın, **2. Batman:** 3♀♀. Hasankeyf District, Suçeken Village, 13.v.2004, 37°44'18"N, 41°17'48"E, E.A. Yağmur, A. Akkaya, **3.** 1♀, 2♂♂. Hasankeyf District, 15 km south of Batman, 17.viii.2007, 37°48'04"N, 41°13'43"E, E.A. Yağmur, A. Kürşat, **4.** 2♀♀, 1♂. Central District, Oğuz Village, 01.ix.2007, E. Yağmur, **5. Diyarbakır:** Çınar District, Aşağı Konak Village 37°37'35"N, 40°29'35"E: 1♂, 14.viii.2007, E.A. Yağmur, 2♀♀, 1 Juv., Ayşebacı Hill, 16.viii.2007, E.A. Yağmur, **6.** 2♀♀, 2♂♂. Hani District, Gürbüz Village, 15.viii.2007, 38°22'46"N, 40°21'51"E, E.A. Yağmur, **7. Gaziantep:** Şahinbey District, Gaziantep University: 1♀, 01.vii.2002, S. Kesmezoğlu, C. Toprak, 1♂, 25.ix.2002, S. Kesmezoğlu, C. Toprak, 1♂, 23.iv.2003, E.A. Yağmur, 1♀, 09.vi.2003, E.A. Yağmur, 1 juv., 16.x.2003, E.A. Yağmur, **8.** 1♂. Oğuzeli District, Oğuzeli Shooting Area, 12.iv.2003, E.A. Yağmur, S. Kesmezoğlu, C. Toprak, **9.** 1♀. Şahinbey District, Şehreküstü Quarter, 09.vii.2003, E.A. Yağmur, **10.** Karkamış District, Gürçay Village: 1♀, 1 juv., 04.x.2003, E.A. Yağmur, C. Toprak, 1♀, 02.xi.2003, E.A. Yağmur, C. Toprak, **11.** 4♀♀, 2♂♂, 1 juv. Karkamış District, Gürçay Village, 3 km south (sand factory), 04.x.2003, E.A. Yağmur, C. Toprak, **12.** 1♀. Araban District, Hisar Village, 10.vi.2004. E.A. Yağmur, C. Toprak, **13.** 1♀. Araban District, Center of Araban, 19.vi.2004, E.A. Yağmur, C. Toprak, **14.** 3♀♀. Karkamış District, Örmetaş Village, 25.ix.2004, E.A. Yağmur, C. Toprak, **15.** 1♀, 1♂. Nizip District, Kıratlı Village, 10.x.2004, E.A. Yağmur, M. Özkörük, **16.** 1♂. Şahinbey District, Sarısalkım Village, 15.x.2006, E.A. Yağmur, **17.** 1 juv. Nizip District, Bozcadağ Hill, 06.vi.2007, 36°53'58"N, 37°42'18"E, E.A. Yağmur, H. Koç, A.V. Gromov, **18. Iğdır:** 1 juv. Central District, 12th km of Doğu Beyazıt Road, 04.vi.2004, M. Kesdek, **19.** 1♀. Central District, Melekli Village, 04.vi.2004, 39°55'58"N, 44°08'01"E, H. Koç, A.V. Gromov, **20. Kars:** 1♂. Digor District, Halıkışlak Village, 03.vi.2004, M. Kesdek, **21. Kilis:** 2♂♂, 1♀. Central District, Akıncı Village, 28.v.2006, 36°41'N 37°15'E, E.A. Yağmur, M. Özkörük, **22. Mardin:** 2♂♂. Central District, Eskikale Village, 04.viii.2007,

E.A. Yağmur, M. Yalçın, **23.** 1♀. Central District, Akıncı Village, 08.viii.2006, E.A. Yağmur, **24. Siirt:** 1♀, 1♂. Central District, Bostancık Village, 19.viii.2004, M. Kesdek, **25. Şanlıurfa:** Central District, Horoz Village: 1♀, 19.iii.2003, E.A. Yağmur, 2♀♀, 3♂♂, 15.x.2005, E.A. Yağmur, **26.** Harran District, Antique Harran University Ruins: 1♀, 1♂, 3 juv., 12.v.2004, E.A. Yağmur, A. Akkaya, 2♀♀, 1♂, 06.v.2006, E.A. Yağmur, M.Z. Yıldız, **27.** 3♀♀, 3♂♂, 1 juv. Central District, Sağlık Village, 15.v.2004, E.A. Yağmur, **28.** 2♂♂. Ceylanpınar District, Evren Paşa Village, 01.iv.2006, C. Öney, **29.** 1♂. Central District, Gazibey (Tekagaç) Village, 10.v.2006, E.A. Yağmur, M.Z. Yıldız, **30.** Suruç District, Aşağı Kendirci (Mürşitpınar) Village: 1♀, 07.ix.2006, İ. Yağmur, 2♀♀, 5♂♂, 15.viii.2006, İ. Yağmur, **31.** 1♀. Viranşehir District, 27 km West of Viranşehir, 23.v.2006, A. Avcı, **32.** 1♀, 1♂. Harran District, 2 km North-East of Şuayipşehir Village, 06.v.2006, E.A. Yağmur, M.Z. Yıldız, **33.** 1♀. Ceylanpınar District, Gellegöç Village, 20.v.2007, 36°58'24"N, 39°34'44"E, E.A. Yağmur, H. Koç, A.V. Gromov, **34.** 1 juv. Birecik District, 10 km East of Birecik, 09.vi.2007, 37°03'23"N, 38°07'09"E, H. Koç, A.V. Gromov, **35. Şırnak:** 1♀. İdil District, Yörük Village, 12.v.2007, E.A. Yağmur, H. Koç, M. Yalçın.

Literature records: **36. Adıyaman:** Çukurtaş Village (20 km N of Kâhta), **37.** Arılı Village (between Kâhta and Adıyaman) (Crucitti & Cicuzza, 2000; Crucitti & Vignoli, 2002), **38. Batman:** Gercüş (Yeşilyurt, 2005), **39. Elazığ:** Palu (Vachon, 1951), **40. Mardin:** Deyrulzafaran Monastery (Eskikale Village), **41.** Güngören (Mar Gabriel Monastery, 21 km SE of Midyat) (Crucitti & Cicuzza, 2000; Crucitti & Vignoli, 2002), **42.** Nusaybin (Yeşilyurt, 2005), **43. Şanlıurfa:** Kısas, **44.** Harran (Crucitti & Cicuzza, 2000; Crucitti & Vignoli, 2002), **45.** Aralık (In the paper as Kuljp) (Birula, 1904).



Fig. 1. *Androctonus crassicauda* from Turkey.



Fig. 2. *Buthacus macrocentrus* from Turkey.

Comments: *A. crassicauda* (Fig. 1) has been recorded from Armenia, Azerbaijan, Bahrain, Egypt (Sinai), Iran, Iraq, Israel, Jordan, Kuwait, Oman, Saudi Arabia, Syria, Turkey, United Arab Emirates and Yemen (Fet & Lowe, 2000; Hendrixson, 2006). In Turkey, it was previously recorded from Aralık (İğdır) (Birula, 1904), Diyarbakır (Vachon, 1947), Elazığ (Palu), Malatya, Mardin, Şanlıurfa (Vachon, 1951), İçel (Tolunay, 1959), Adıyaman (Crucitti, 1999; Crucitti & Cicuzza, 2001), Kilis (Karataş, 2001; Yağmur *et al.*, 2007), Gaziantep (Yağmur, 2005), Batman (Yeşilyurt, 2005). In the present study, the distribution of *A. crassicauda* in Adıyaman, Batman, Diyarbakır, Gaziantep, İğdır, Kilis, Mardin and Şanlıurfa Province is confirmed and it is recorded from Kars, Siirt, Şırnak for the first time (Fig. 3). But, we could not confirm the records in Elazığ (Palu), Malatya (Vachon, 1951), or İçel (Tolunay, 1959). All of our records show that *A. crassicauda* is generally recorded from arid and hot areas and is distributed in South-East Turkey, especially the south of South-East Anatolia Taurus. Furthermore,

we have not been able to find any specimen from Eastern Mediterranean Area. Hence, we think that the record of İçel (Tolunay, 1959) is doubtful. The sampling localities plotted on the map given by Vachon (1951) are not clear. All of our records, except Iğdır and Kars records, are from South-East Anatolia and we could not find any specimen from the north of the South-East Anatolia Taurus that includes Elazığ and Malatya. Except these records, our localities concur with those of Vachon (1951). Furthermore, the records of *A. crassicauda* from Iğdır and Kars, taking in consideration that it is already known from Armenia, Azerbaijan and Iran (Fet & Lowe, 2000), suggests that the distribution of *A. crassicauda* in East of Turkey is a continuation of other known distribution records.

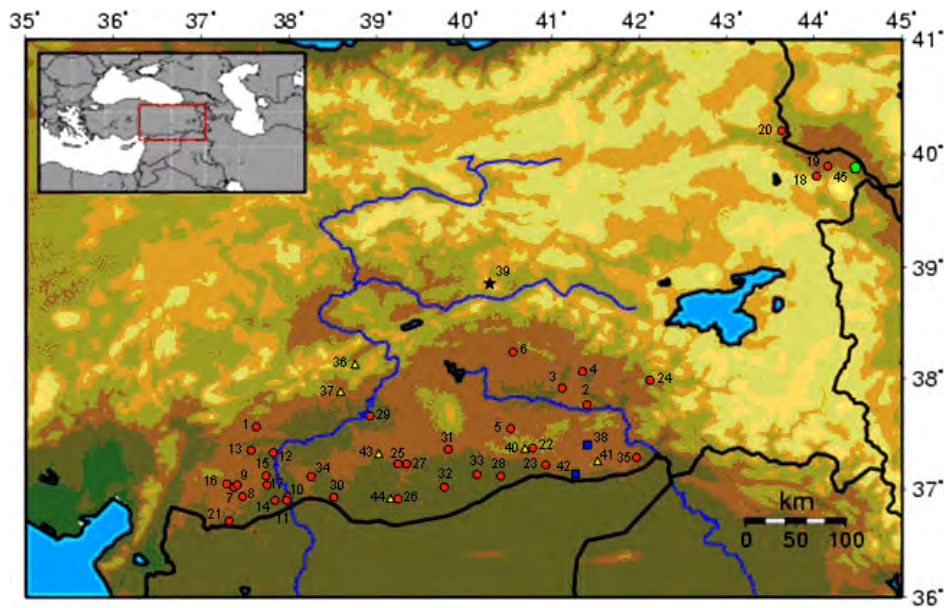


Fig. 3. Sampling localities of *Androctonus crassicauda* in Turkey. Circles [1-35]: new findings; Squares [38, 42] (Yeşilyurt, 2005); Triangles [36, 37, 40, 41, 43, 44] (Crucitti & Cicuzza, 2000; Crucitti & Vignoli, 2002); Star [39] (Vachon, 1951); Pentagon [45] (Birula, 1904).

***Buthacus macrocentrus* (Ehrenberg, 1828)**

Androctonus (Leiurus) macrocentrus Ehrenberg, 1828

Type Locality: Sinai, Egypt.

Buthacus macrocentrus Kovařík, 2005

Synonyms:

Androctonus (Leiurus) macrocentrus Ehrenberg in Hemprich & Ehrenberg, 1828

Buthus pietschmanni Penther, 1912

Material examined: 1. **Şanlıurfa:** 11♀♀, 7♂♂, 2 juv. Harran District, Antique Harran University Ruins, 06.v.2006, E.A. Yağmur, M.Z. Yıldız, 2. 6♀♀, 4♂♂. Birecik District, Çiçekalan Village, 11.v.2006, E.A. Yağmur, M.Z. Yıldız, 3. 1♂. Birecik District, Körkün Village, 23.v.2007, E.A. Yağmur, H. Koç, A.V. Gromov.

Literature records: 4. **Şanlıurfa:** Harran (Crucitti & Vignoli, 2002).

Comments: *B. macrocentrus* (Fig. 2) has a widespread distribution in Bahrain, Egypt?, Iran, Iraq, Israel, Jordan, Oman, Qatar, Saudi Arabia, Syria and United Arab Emirates (Fet & Lowe, 2000; Kovařík, 2005; Lourenço, 2006). In Turkey, it was recorded by Crucitti & Vignoli (2002) from only one locality, Şanlıurfa Province (Antique Harran University Ruins in Harran district). In this study, it is recorded from three localities. It is

recorded from Harran District (the same locality of the first record) and two villages in Birecik District in Şanlıurfa Province (Fig. 4). These records show that *B. macrocentrus* is probably more abundant along the Turkish-Syrian Border.

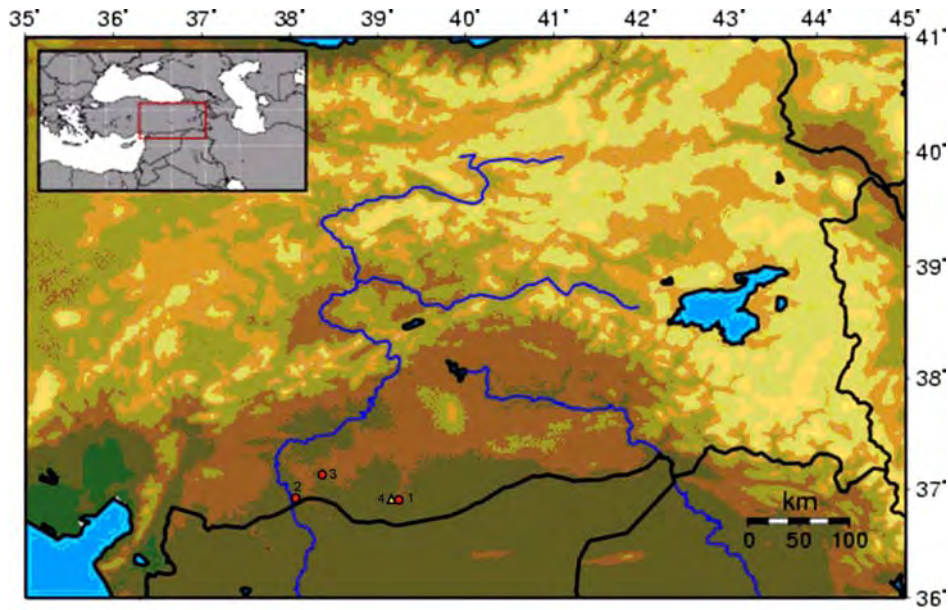


Fig. 4. Sampling localities of *Buthacus macrocentrus* in Turkey.
Circles [1-3]: new findings; Triangle [4] (Crucitti & Vignoli, 2002).

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***Antistea elegans* (Blackwall, 1841) (Araneae: Hahniidae),
a new record of a comb-tailed spider from Turkey**

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Abstract

Antistea elegans (Blackwall, 1841) is recorded for the first time from Turkey. The characteristic features and female genitalia drawing are presented, in addition to the geographical distribution of the species.

Keywords: Araneae, Hahniidae, *Antistea elegans*, Turkey.

Introduction

The comb-tailed spiders or dwarf sheet spiders (Family Hahniidae Bertkau, 1878) are small spiders; their bodies are about 2-3 mm in length. They build extremely delicate webs in the form of a sheet, and unlike many spiders, such as agelenids, the web does not lead to a retreat. The silk used in these webs is so fine that they are difficult to spot unless they are coated with dew. They greatly favour locations near water or near moss, and are often found in leaf litter and detritus or on the leaves of shrubs and trees (Murphy & Murphy, 2000).

The median pair of spinnerets is composed of one-segment, corresponding to the posterior median spinnerets of other spiders. While, both the intermediate and the lateral pairs of spinnerets are composed of two segments, corresponding to the anterior median and the posterior lateral spinnerets of other spiders, respectively (Opell & Beatty, 1976). The lateral spinnerets are the longest ones and the median spinnerets are the shortest ones. There are three serrate claws on each leg without claw tufts. Most comb-tailed spiders dwell under stones, in leaf litter, mosses, and soil crevices on the ground, or even under a moss-covered tree bark where they build delicate sheet webs and mainly feed on springtails (Collembola) (Barrion & Litsinger, 1995).

Until now, 236 comb-tailed spider species belong to 26 genera have been described in the world (Platnick, 2008). However, only four species of the same genus were recorded from Turkey by some European arachnologists (Topçu *et al.*, 2005);

Cryphoea brignolii Thaler, 1980, *C. pirini* (Drensky, 1921), *C. silvicola* (C.L. Koch, 1834) and *C. thaleri* Wunderlich, 1995.

In this brief paper, we report *Antistea elegans* (Blackwall, 1841) as a new spider record for the Turkish araneofauna.

Material and Methods

Two females of *Antistea elegans* were examined in this study. The specimens were preserved in 70% ethanol and deposited in the museum of the Turkish Arachnological Society (MTAS-TURKEY). The identification was made by means of a SMZ10A Nikon stereo microscope with camera lucida using the key of Heimer & Nentwig (1991). All measurements are in millimetres.

Results

Antistea elegans (Blackwall, 1841)

Material examined: 1♀ (MTAS/Hah: 0001), Oğuz Village, (37°48'47.16"N, 41°23'1.68"E, Batman province), 01.IX.2007, found under a stone, in detritus; 1♀ (MTAS/Hah: 0002), Polateli road, (36°46'06.0"N, 37°04'17.1"E, Kilis province), 01.III.2008, found under a stone, in detritus (Fig. 1).



Fig. 1: Sampling localities of *Antistea elegans* (Blackwall, 1841) in Turkey (circle ●: Batman Province, square ■: Kilis Province).

Description: Body length, 2.76 (2.52-3.01). Prosoma yellowish brown, with faint blackish radiating lines; cephalic region obviously narrower. There are 9-11 conspicuous black bristles with fovea in the midst of the ocular area. Sternum yellowish, heart-shaped, with marginal black spots. Labium and maxillae colour as prosoma. Ocular region with numerous bristles. Opisthosoma greyish-brown, with black bristles. Legs yellowish-brown. Legs measurements as in Table (1). Epigynum heart-shaped with large copulatory openings (Fig. 2).

Table 1: Legs measurements of ♀ *Antistea elegans* collected in Turkey.

Leg (n=2)	Femur	Patella + Tibia	Metatarsus	Tarsus	Total
I	0.84	0.99	0.60	0.46	2.89
II	0.84	0.98	0.60	0.46	2.88
III	0.76	0.90	0.72	0.48	2.86
IV	0.79	1.15	0.93	0.57	3.44

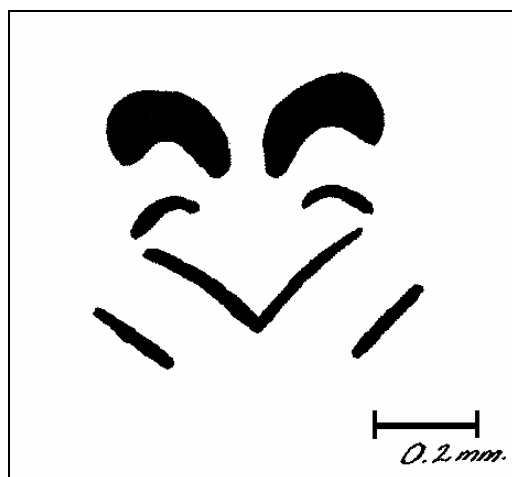


Fig. 2: Female epigynum, ventral view.

Distribution: Hungary (Chyzer & Kulczyński, 1897), France (Simon, 1937), Bulgaria (Drensky, 1942), Germany (Harm, 1966), Norway (Waalder, 1971), Central Europe (Heimer & Nentwig, 1991), Northern England (Downie *et al.*, 1995), Russia (Mikhailov, 1996), Romania (Weiss & Petrisor, 1999), Portugal (Cardoso, 2000), Spain (Melic, 2000), Eastern Poland (Stańska *et al.*, 2000), Macedonia (Blagoev, 2002), Czech Republic (Buchar & Růžicka, 2002), Finland (Koponen, 2002), Sweden (Almquist, 2005), Latvia (Spuogis *et al.*, 2005), Italy (Trotta, 2005), Netherland and Belgium (Vanuytven, 2006), Denmark (Scharff & Gudik-Sørensen, 2008), Japan (Tanikawa, 2008).

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Review of the Oonopidae of Egypt (Arachnida: Araneae)

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Abstract

Eight species of seven genera of family Oonopidae are recorded from Egypt. A key to genera and species and a distribution map of the species in Egypt are included. *Ischnothyreus velox* Jackson, 1908 is recorded from Egypt for the first time. *Gamasomorpha margaritae* is transferred to *Opopaea margaritae* (Denis, 1947) comb. n.

Keywords: Araneae, Spiders, Oonopidae, Egypt.

Introduction

Family Oonopidae Simon, 1890 (Goblin or dwarf hunting/armoured spiders) is a family of tiny (total length mostly <4 mm) haplogyne spiders which are free-living and mostly ground dwelling creatures. Simon (1893a) divided Oonopidae into two sections, Oonopidae molles (7 genera) and Oonopidae loricatae (11 genera). The most recent catalogue of spiders reports more than four times of that number of genera. Now, Oonopidae includes 491 worldwide distributed species of 73 genera, i.e. 1.23% of all described spider species and 1.98% of spider genera (Platnick, 2008). The number of described oonopid species and genera is considerably enlarged during the twentieth century. But, during the last ten years (1998-2007), only 28 taxonomical references dealt with Oonopidae out of more than 1900 references dealt with all spider families (Platnick, 2008). Seven of these references carried the name of Saaristo who studied and described several new species of this family. His works elucidate that "only a small fraction of the species of this family has been discovered and described" (Saaristo, 2007). It is necessary to review the oonopid fauna of every country to put the base line before the start of larger studies in this country and in the world, such as the Planetary Biodiversity Inventory (PBI) of the goblin spider family Oonopidae (<http://research.amnh.org/oonopidae/index.php>).

"For about eleven weeks between the middle of January and the middle of April 1864", the Reverend Octavius Pickard-Cambridge visited Egypt and collected spiders during his travel from Alexandria on the Mediterranean Sea to Aswan in the south of Egypt (Parker, 1991). Among the specimens collected by Cambridge, there were a few oonopid spiders. He described *Oonops scutatus* and *Oonops pauper* as two new species

from Alexandria (Cambridge, 1876). This record was the first one of oonopid spiders from Egypt. In 1882, Eugène Simon described *Salsula longipes* as a new genus and species from Alexandria (Simon, 1882). It became a synonym of Cambridge's *Oonops pauper*. Talking about *Orchestina pavesii*, Simon (1890) said: "I discovered this species in Corsica and I found it again later in Algeria and in Egypt". A few years later, Simon (1893b) described *Gamasomorpha arabica* from Ain Mouça near Suez. Also, in his Catalogue of North African arachnids, he recorded *Opopaea punctata* (O. P.-Cambridge, 1872) from Alexandria and Ain Musa (Simon, 1910). After 37 years, Jacques Denis (1947) described *Gamasomorpha margaritae* from Siwa in the western desert of Egypt. *Ovobulbus bokerella*, the most recent oonopid species was described 60 years later by Saaristo (2007) from Sinai. The most recent list of Egyptian spiders included only 5 species of 4 genera of Oonopidae (El-Hennawy, 2006).

In the present work, an old neglected record is noticed with the record of another species and genus for the first time from Egypt. Now, the known oonopids of Egypt are 8 species of 7 genera. A key to differentiate among the genera and species of Oonopidae recorded from Egypt is prepared. The photographs of four species and a distribution map of the oonopids recorded from Egypt are included (Map 1).

Methods

The examined material is mentioned in detail with the note about or the description of the related species. The examined specimens are deposited in the Arachnid Collection of Egypt (ACE). The used abbreviations and measurements order are according to Saaristo (2007). All measurements are in millimetres.

Abbreviations used: ACE = Arachnid Collection of Egypt, Cairo, Egypt; AL = Length of abdomen; AW = Width of abdomen; CH = Carapace height; CHI = Ratio of carapace height to length; CI = Ratio of carapace width to length; CL = Carapace length; CW = Carapace width; D = Description; FeI = Ratio of femur IV length to carapace length; FeIV = Femur IV length; LLI = Ratio of tibia I length to carapace length; N = Note; TiI = Tibia I length; TL = Total length.

The Oonopidae of Egypt

Genus *Dysderina* Simon, 1891

- 44 species, from: Central and South America, Africa, and Philippines (Platnick, 2008).

In 1891, Simon established genus *Dysderina* and described *Dysderina princeps* Simon, 1891 as new species from St. Vincent. Two years later, he transferred 7 species from *Oonops* to *Dysderina* (Simon, 1893a); i.e. *D. scutata* (O. P.-Cambridge, 1876) from Egypt, *D. globosa* (Keyserling, 1877), *D. desultrix* (Keyserling, 1881), *D. machinator* (Keyserling, 1881), *D. principalis* (Keyserling, 1881) [Type species], *D. propinqua* (Keyserling, 1881), and *D. similis* (Keyserling, 1881) from Colombia and Peru. He also divided the genus into two groups according to eyes arrangement and male palpal organ structure (Simon, 1893a: p.304). In the same year, he described two new species, *D. bimucronata* and *D. purpurea*, from Philippines (Simon, 1893c). The same author described 4 new species, i.e. *D. capensis*, *D. keyserlingi*, *D. speculifera*, and *D. sublaevis*, from South Africa, Brazil, and Algeria (Simon, 1907). He and Fage (Simon & Fage, 1922, Fage & Simon, 1936) described 3 other new species from Kenya and East Africa, i.e. *D. granulosa* Simon & Fage, 1922, *D. perarmata* Fage & Simon, 1936, and *D. straba* Fage, 1936. The other 27 described species of this genus were mostly found in the New World

(Platnick, 2008). The majority of these species, 21, were described by Chickering (1951, 1968) from Panama and Central America. Hence, the distribution of the known *Dysderina* species extends from Central and South America to Africa (North, East, and South), and Philippines.

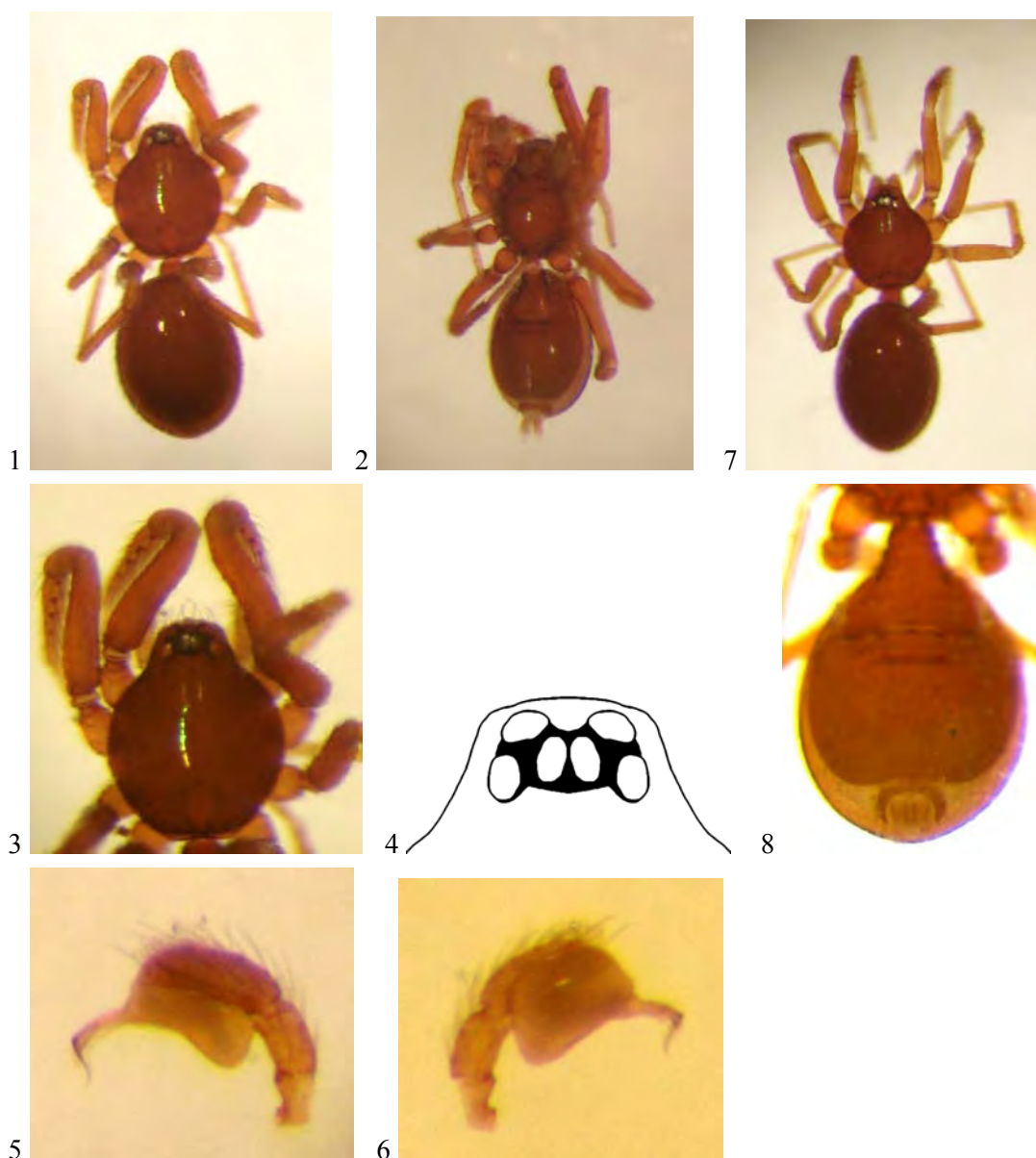
Dysderina scutata (O. P.-Cambridge, 1876)

Figs. 1-8.

Oonops scutatus O. P.-Cambridge, 1876: 547-549, pl. 58, f. 2A (D♂). Under stones, near Alexandria (31°12'N 29°54'E), 1♂ 2♀♀, April 1864, by O. P.-Cambridge (Deposited in Oxford University Museum of Natural History, U.K. (OUMNH)).

D. s. Simon, 1893a: 304.

D. s. Simon, 1910: 310 (N) Alexandria.



Figs. 1-8. *Dysderina scutata* (O. P.-Cambridge, 1876)

Figs. 1-6. ♂. 1. dorsal view. 2. ventral view. 3. dorsal view of cephalothorax and first legs showing their spination. 4. eyes. 5. right palp, prolateral view. 6. right palp, retrolateral view. Figs. 7-8. ♀. 7. dorsal view. 8. abdomen ventral view, showing epigynal area.

World distribution: Egypt.

Material examined. Egypt, El-Faiyum (29°31'N 30°84'E), 1♀, February 2002, Citrus orchard and Sohag (26°55'N 31°69'E), 2♂♂1♀, March 2002, Mango orchard, by M. Mohafez (ACE 20020200.01, 20020300.01-03).

Description (Extracted, with modifications, from Cambridge, 1876).

♂ TL $1\frac{1}{4}$ line [= 2.65 mm]. The *cephalothorax* is oval, strongly constricted laterally at the caput [cephalic part]; the thoracic junctional point is (looked at in profile) of an angular form, and elevated above the level of the rest of the cephalothorax, the hinder slope being abrupt; it is of a bright orange-brown colour; and the sides and hinder part are thickly covered with minute tubercles or granulosities, which in some positions assume the appearance of punctures. The eyes are large, six in number, closely grouped together, and occupy nearly the whole of the upperside of the fore extremity of the caput, where they form a quadrilateral figure whose foremost side is considerably shorter than the hinder one; they do not differ much in size, and are all of a more or less oval shape; those of the hind central pair are closely contiguous to each other, their sides of contact being flattened and so closely joined as almost to conceal the junction. The eyes of each lateral pair are very near together, but not quite contiguous to each other, each fore lateral eye being also equally close to the hind central eye on its side, and each hind lateral eye still closer (almost contiguous) to the hind central nearest to it; the interval between those of the front row (or the fore laterals) is about equal to their longest diameter; the height of the clypeus, which projects a little at its lower margin, is rather less than half that of the facial space. The *legs* are moderately long and strong, of a lightish orange-yellow colour; and their relative length appeared to be 4, 1, 2, 3; the femora are the strongest, especially at their posterior extremities, which are abruptly enlarged on the upperside close to the articulation, but run evenly thence to the anterior extremities; they are furnished, but not very thickly, with hairs; the tibiae and metatarsi of the first and second pairs are armed beneath with a double series of long and strong sessile spines; the other two pairs of legs have bristles (or very slender spines) in a similar situation; each tarsus terminates with two curved claws springing from a distinct supernumerary claw- (or heel) joint. The *palpi* are short and not very strong; their colour is yellow, paler than that of the legs; and they are furnished with hairs and bristles; the cubital and radial joints are short, the former is bent downwards, the latter is rather the longest and strongest; the digital joint is narrow, tapering from the middle to the fore extremity, and no broader than, but almost double as long as, the radial; the palpal organs consist of a very large and prominent oval yellowish lobe with a largish curved, pale brownish yellow, pointed process at its anterior extremity. The *falces* [chelicerae] are moderately long, but not very strong, directed backwards towards the labium, furnished in front with bristly hairs, and similar in colour to the cephalothorax. The *maxillae* and *labium* are of normal form, the latter being rather large; these parts, with the *sternum*, are similar to the legs in colour. The *abdomen* is of an oval form, moderately convex above, and covered both above and below with a bright reddish yellow-brown somewhat corneous scutum, the approximate edges, according as they are more or less separated, showing a greater or less interval of pale yellowish membranous integument; the spiracular plates are continuous with each other, and, extending forwards, cover the pedicle by which the abdomen is connected with the cephalothorax; this pedicle is longer and more distinctly developed than in most other spiders; the upper scutum is very highly polished and glossy, and it is thinly but evenly covered with minute tubercles, each of which supports a fine bristly hair; the spinners are short and inconspicuous; they are enclosed below by a narrow reddish yellow-brown semicircular band of a similar nature to the scutum with which the abdomen is covered.

When the edges of the upper and lower scutum are brought together, they enclose and conceal the spinners. The spiracular openings are four in number, the two extra ones being smaller than the others and situated one close behind each of the two ordinary openings.

Note. The description, in detail, of Cambridge (1876) is enough. Only, measurements of male and female are added, in addition to pictures of them and their genitalia (Figs 1-8.)

Measurements. ♂: TL 1.80, CL 0.79, CW 0.64, CH 0.53, AL 1.01, AW 0.69, TiI 0.64, FeIV 0.74, CI 0.8, CHI 0.67, LLI 0.8, FeI 0.93; ♀: TL 2.07, CL 0.85, CW 0.69, CH 0.53, AL 1.22, AW 0.79, TiI 0.53, FeIV 0.69, CI 0.81, CHI 0.62, LLI 0.62, FeI 0.81.

Genus *Gamasomorpha* Karsch, 1881

- 57 species, from: USA, Central and South America, Africa, Middle East, Asia, and Australia (Platnick, 2008).

Gamasomorpha arabica Simon, 1893

G. a. Simon, 1893b: 302-303 (D♂). Aïn Mouça, near Suez (28°33'N 33°55'E).

G. a. Simon, 1910: 309 (N). Aïn Mouça, near Suez.

World distribution: Middle East.

Description (Translation of Simon, 1893b).

♂ TL 2 mm. – Cephalothorax oval, slightly convex, dark red, longitudinally diluted in middle, with subtle but thick skin-shrivelled and sparse thick white hairs on both sides. Posterior eyes row strongly recurved, medians distinctly separated from laterals. Anterior eyes with at least eye diameter distance between them. Abdominal scuta and sternum dark red, with dense and thin skin-shrivelled and greyish-white slanting slightly lanceolate hairs. Legs short, robust, yellowish-red. Pedipalps yellow, femur robust, patella and tibia subequally short, tarsus narrowly oval, bulb insignificantly cylindrical, lobe about equal length, fortified by a bended spine.

Genus *Ischnothyreus* Simon, 1893

- 19 species, from: Yemen, Seychelles, South East Asia, Pacific islands, USA, Central America, St. Helena, and Europe (introduced) (Platnick, 2008).

Ischnothyreus velox Jackson, 1908

Figs. 9-16.

I. v. Jackson, 1908: 51, pl. 4, f. 9-13 (D♂♀). [Not seen]

I. v. Bristowe, 1948: 890, f. 1, 15-20 (♂♀).

I. v. Locket & Millidge, 1951: 76, f. 33C, 35A, 37A, 38C, E (♂).

I. v. Saaristo, 2001: 347, f. 146B, 151, 155B (♂♀). [Not seen]

World distribution: Seychelles, Europe (introduced), Egypt [NEW RECORD].

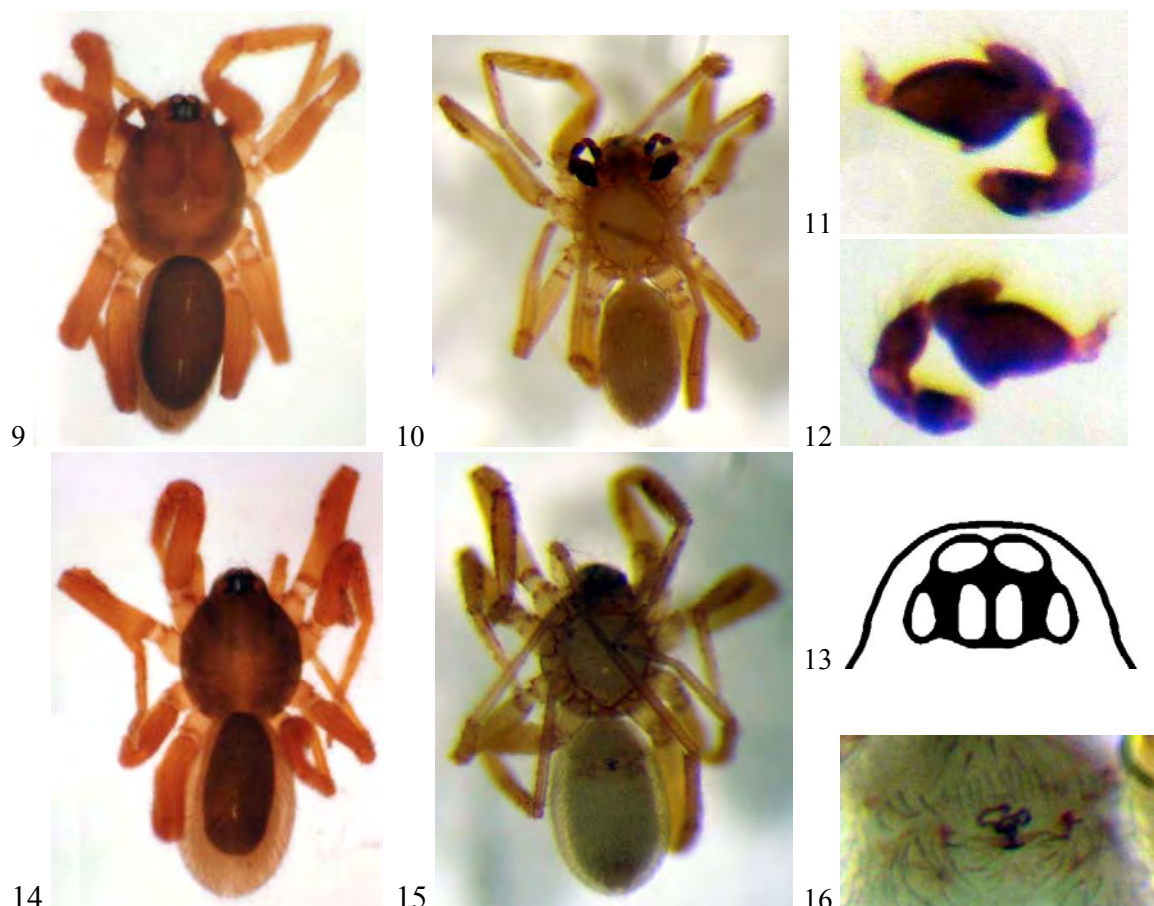
Material examined. Egypt, Cairo, Bab El-Khalq (30°02'44"N 31°15'09"E), 1♂1♀, 22 July 1999, 10:15 pm, jumping on the floor, inside the building of the Criminal Investigation Laboratory, by H. El-Hennawy (ACE 19990722.01-02).

Description. ♂ Colour yellowish-brown. Cephalothorax darker than abdomen and legs (yellow). A few hairs on clypeus and in the middle of carapace. Cephalothorax oval with cephalic area forwards protruding, with two oblong, pear-shaped, figures behind the ocular area until the middle of the cephalothorax. Abdomen covered by sparse hairs. Dorsal scutum greyish brown covers 88% of the abdomen. Ventral scutum small, light

yellow, covering only 69% of the area. Palps dark brown. Spination of legs: Femur I with 1 prolateral row of 2 spines, Femur II with 1 prolateral spine, Tibiae I, II with 1 prolateral + 1 ventral rows each of 4 spines, Metatarsi I, II with 1 prolateral + 1 ventral rows each of 2 spines. Other legs only with sparse hairs.

♀ Similar to male, without the two oblong, pear-shaped, figures of the cephalic area. Dorsal scutum only covers 78% of the median area of the abdomen and ventral scutum covers only 39% of the ventral side.

Measurements. ♂: TL 1.59, CL 0.79, CW 0.64, CH 0.48, AL 0.79, AW 0.42, TiI 0.53, FeIV 0.66, CI 0.8, CHI 0.6, LLI 0.33, FeI 0.83; ♀: TL 1.75, CL 0.79, CW 0.58, CH 0.37, AL 0.95, AW 0.58, TiI 0.58, FeIV 0.79, CI 0.73, CHI 0.47, LLI 0.73, FeI 1.0.



Figs. 9-16. *Ischnothyreus velox* Jackson, 1908

Figs. 9-13. ♂. 9. dorsal view. 10. ventral view. 11. right palp, prolateral view. 12. right palp, retrolateral view. 13. eyes. Figs. 14-16. ♀. 14. dorsal view. 15. ventral view. 16. epigynal area.

Genus *Opopaea* Simon, 1891

- 45 species, from: Americas, Africa, Middle East, Asia, and Australia (Platnick, 2008).

Opopaea margaritae (Denis, 1947) [NEW COMBINATION]

Fig. 17.

Gamasomorpha m. Denis, 1947: 83, pl. IV, f. 13-15 (D♀). Siwa (29°20'N 25°52'E), 1♀, 27 August 1935. (Deposited in the Natural History Museum of London, U.K. (BMNH)).

World distribution: Egypt.

Description (Extracted, with modifications, from Denis, 1947).

♀ TL 1.3 mm. Cephalothorax orange-yellow, very slightly striated on its sides; wider behind than in front; wider at the level of coxae II and towards coxae III; rather thick and flat, but abruptly sloping behind (as in *G. kulczynskii* Berland); clypeus very narrow, equalling the third part of an anterior eye, anterior eyes not quite their radius apart, slightly larger than the median ones; the postero-lateral ones the smallest. Sternum rather like *G. kulczynskii*, but its hind part more square, less lengthened; yellow with sunk points; maxillae more rounded than in *kulczynskii*. Palp and legs yellow with red articulations. Abdominal scuta orange-yellow, the posterior one annular, very pale, scarcely visible.

Note. The description of *Gamasomorpha margaritae* by Denis (1947) is very brief. His drawing of its cephalothorax (pl. IV, f. 13) (Fig. 17), its width and the ocular arrangement, suggests that it belongs to genus *Opopaea* instead of *Gamasomorpha*. This concurs with the discussions of Brignoli (1974 and 1975) who transferred *Gamasomorpha kulczynskii* to genus *Opopaea* (Brignoli, 1975).

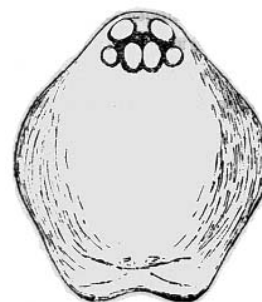


Fig. 17. *Opopaea margaritae* (Denis, 1947) ♀ cephalothorax, dorsal view. (After Denis, 1947: pl. IV, f. 13)

Opopaea punctata (O. P.-Cambridge, 1872)

Fig. 18.

Oonops punctatus O. P.-Cambridge, 1872: 223-224, pl. 14, f. 3A (D♂). 1♂, "was found under a stone on a wall close to Hasbeiya" (Hassbaya, south of Lebanon (Assi, 1982)).
O. p. Simon, 1910: 309. (N) Alexandria (31°12'N 29°54'E), Ain Mouça (28°33'N 33°55'E).
O. p. Brignoli, 1975: 224, f. 1-4 (♂).
O. p. Assi, 1982: 87, f. 1 (♀).
O. p. Saaristo, 2007: 133, f. 70-78 (♂♀).

World distribution: Egypt, Lebanon, Israel, doubtfully pantropical.

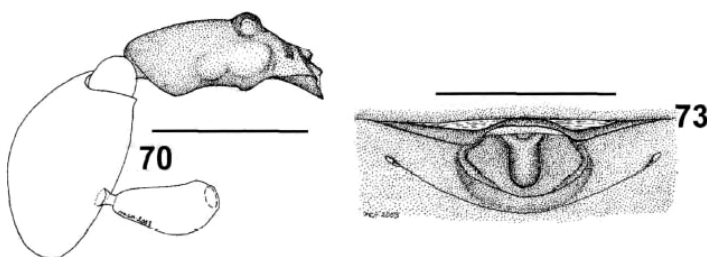


Fig. 18. *Opopaea punctata* (O. P.-Cambridge, 1872)
 [70. ♂, right palp laterally. 73. ♀, epigastric area.] (After Saaristo, 2007)

Opopaea sp.

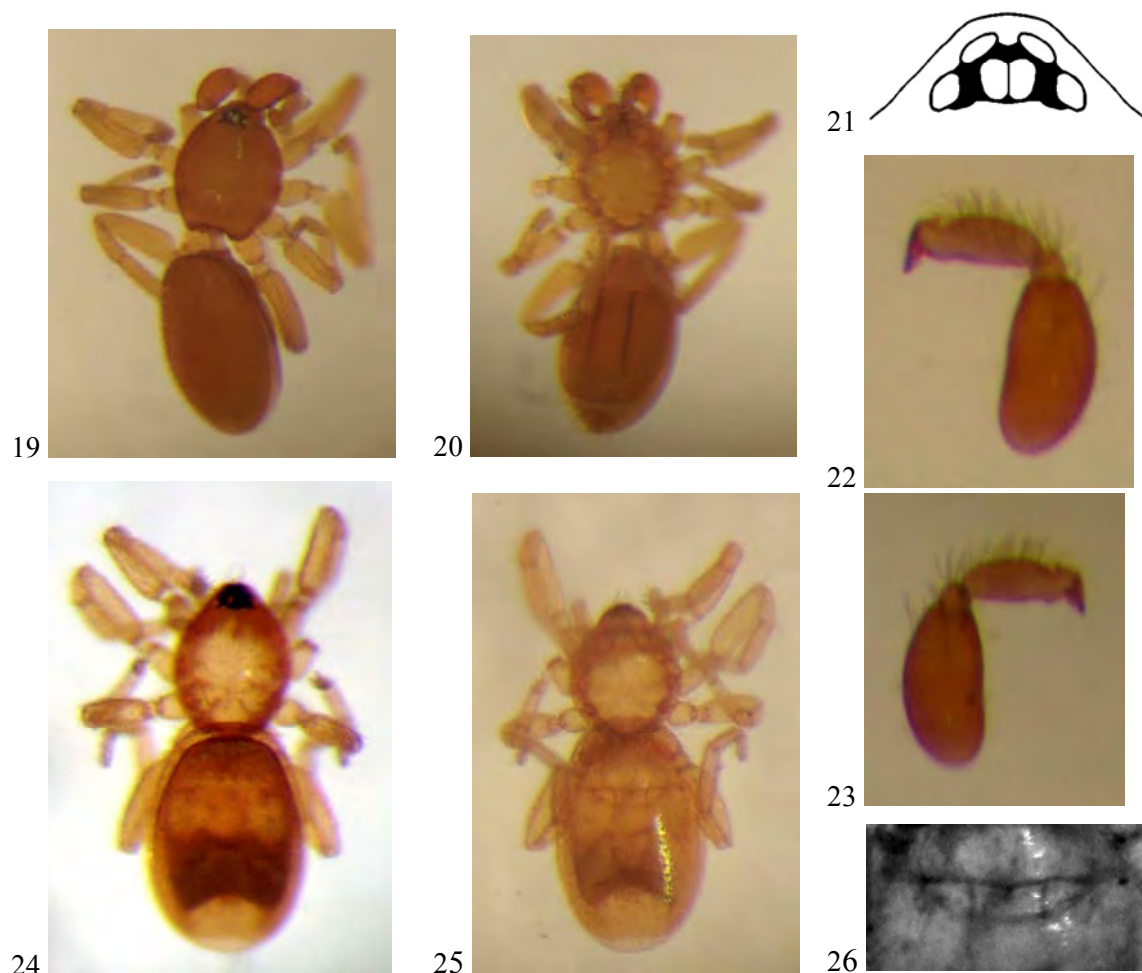
Figs. 19-26.

Material examined. Egypt, Cairo, Bab El-Khalq (30°02'44"N 31°15'09"E), 1♀, 2 October 1997, inside the building of the Criminal Investigation Laboratory, by H. El-Hennawy (ACE 19971002.01). Egypt, Sallant near El-Mansura (31°10'N 31°35'E), 1♂, 28 March 2003, in a cultivated field, by H. El-Hennawy (ACE 20030328.01).

Note. Despite of the fact that descriptions of Cambridge (1872), Brignoli (1975), Assi (1982), and Saaristo (2007) are sufficient for the identification of *Opopaea punctata*, the

two studied Egyptian specimens may belong to this species or not, but at least they belong to genus *Opopaea*. The measurements of the studied male and female specimen are included for comparison with other material.

Measurements. ♂ (Sallant): TL 1.43, CL 0.58, CW 0.48, CH 0.37, AL 0.85, AW 0.53, TiI 0.21, FeIV 0.42, CI 0.82, CHI 0.64, LLI 0.36, FeI 0.73; ♀ (Cairo): TL 1.32, CL 0.53, CW 0.40, CH 0.26, AL 0.79, AW 0.53, TiI 0.18, FeIV 0.37, CI 0.75, CHI 0.5, LLI 0.35, FeI 0.7.



Figs. 19-26. *Opopaea* sp. Figs. 19-23. ♂ (Sallant). 19. dorsal view. 20. ventral view. 21. eyes. 22. right palp, prolateral view. 23. right palp, retrolateral view. Figs. 24-26. ♀ (Cairo). 24. dorsal view. 25. ventral view. 26. epigynal area.

Genus *Orchestina* Simon, 1882

- 43 species, from Africa, Israel, Yemen, Socotra, Seychelles, South East Asia, Philippines, Tasmania, Samoa, USA, Venezuela, Europe, and Canary Is. (Platnick, 2008).

Orchestina pavesii (Simon, 1873)

Fig. 27.

Schoenobates p. Simon, 1873: 45, pl. 1, f. 29-31 (D♂♀). [Not seen]

O. p. Simon, 1882: 237 (N) Egypt [*Orchestina* = *Schaenobates*].

O. p. Simon, 1890: 87 (N).

O. p. Simon, 1893a: 291, f. 251-253, 259, 265 (♂).

O. p. Melic, 1994: 114-116, f. 9-11 (♂♀).
O. p. Pekár & Gajdoš, 2001: 51, f. 1-4 (♂♀).
O. p. Saaristo & Marusik, 2004: 52, f. 10-15 (♂♀).
O. p. Saaristo, 2007: 125, f. 17, 19 (♂♀).

World distribution: Algeria, Egypt, Canary Is., Yemen, Europe: Spain to Slovakia, Bulgaria.

Note. This species is widely distributed in the world. It was recently recorded for the first time from the Iberian Peninsula by Melic (1994) and from Slovakia by Pekár & Gajdoš (2001). Despite of the fact that Simon (1890) said: "I discovered this species in Corsica and I found it again later in Algeria and in Egypt", *Orchestina pavesii* was not recorded from Egypt in his catalogue of North African arachnids (Simon, 1910) nor in subsequent catalogues.

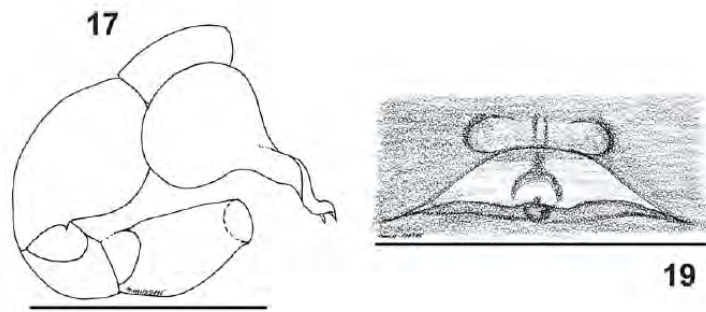
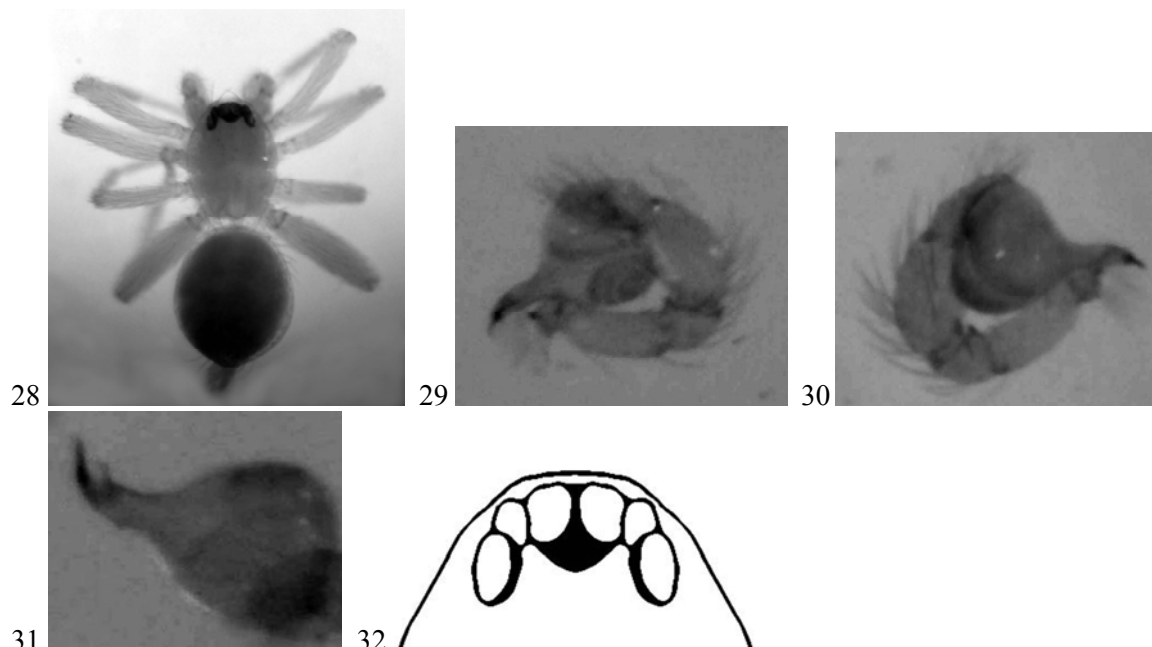


Fig. 27. *Orchestina pavesii* (Simon, 1873)
 [17. ♂, right palp laterally. 19. ♀, copulatory organ ventrally.] (After Saaristo, 2007)

Orchestina sp.
 Figs. 28-32.



Figs. 28-32. *Orchestina* sp. ♂. 28. dorsal view. 29-31. right palp. 29. prolateral view. 30. retrolateral view. 31. ventral view. 32. eyes.

Material examined. Egypt, El-Faiyum, Ebshowai (29°37'N 30°68'E), 1♂, 19 January 2003, Mango orchard, by G. Sallam (ACE 20030119.01).

Note. This male of Ebshowai confirms the presence of, at least, genus *Orchestina* in Egypt.

Measurements. ♂: TL 1.17, CL 0.53, CW 0.42, CH 0.26, AL 0.64, AW 0.53, TiI 0.42, FeIV 0.58, CI 0.8, CHI 0.5, LLI 0.8, FeI 1.1.

Genus ***Ovobulbus*** Saaristo, 2007

- Only 3 species from the Middle East (Egypt and Israel) (Saaristo, 2007).

Ovobulbus bokerella Saaristo, 2007

Fig. 33.

O. b. Saaristo, 2007: 126, f. 34-38 (D♂♀).

World distribution: Egypt, Israel.

Note. Genus *Ovobulbus* is distinguished by the large, more or less egg-shaped bulbus of the male palp bearing a long and narrow psemبولus (= trunk-like, sometimes even filamentous, outgrowth of the bulbus) on its lateral face; cymbium and bulbus separate. Only 1♂ was collected from Egypt, Sinai, Wadi Ara'am, 23 January 1969, by S. Reichenstein (Deposited in the Hebrew University of Jerusalem, HUJ 15311) (Saaristo, 2007).

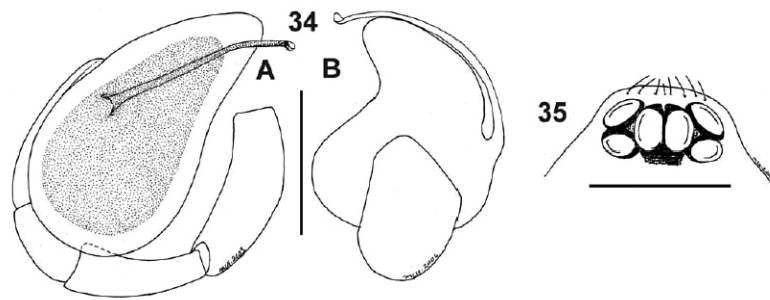


Fig. 33. *Ovobulbus bokerella* Saaristo, 2007

[♂. 34. right palp laterally (A) and mesially (B). 35. eyes dorsally.] (After Saaristo, 2007)

Genus ***Sulsula*** Simon, 1882

- Only 2 species, *S. pauper* (O. P.-Cambridge, 1876) from Algeria and Egypt and *S. parvimana* (Simon, 1910) from Namibia (Platnick, 2008).

Sulsula pauper (O. P.-Cambridge, 1876)

Oonops p. O. P.-Cambridge, 1876: 549-550 (D♀). Alexandria (31°12'N 29°54'E), under a stone, 1♀, April 1864, by O. P.-Cambridge (Deposited in Oxford University Museum of Natural History, U.K. (OUMNH)).

S. longipes Simon, 1882: 237. 1♂ Ramleh, near Alexandria (31°14'N 29°58'E), by M.A. Letourneux.

Salsula longipes Simon, 1893a: 291.

Salsula pauper Simon, 1910: 308 (N) Egypt: Alexandria. Algeria: Biskra! On sand, in the dunes.

World distribution: Algeria, Egypt.

Description (Extracted, with modifications, from Cambridge, 1876).

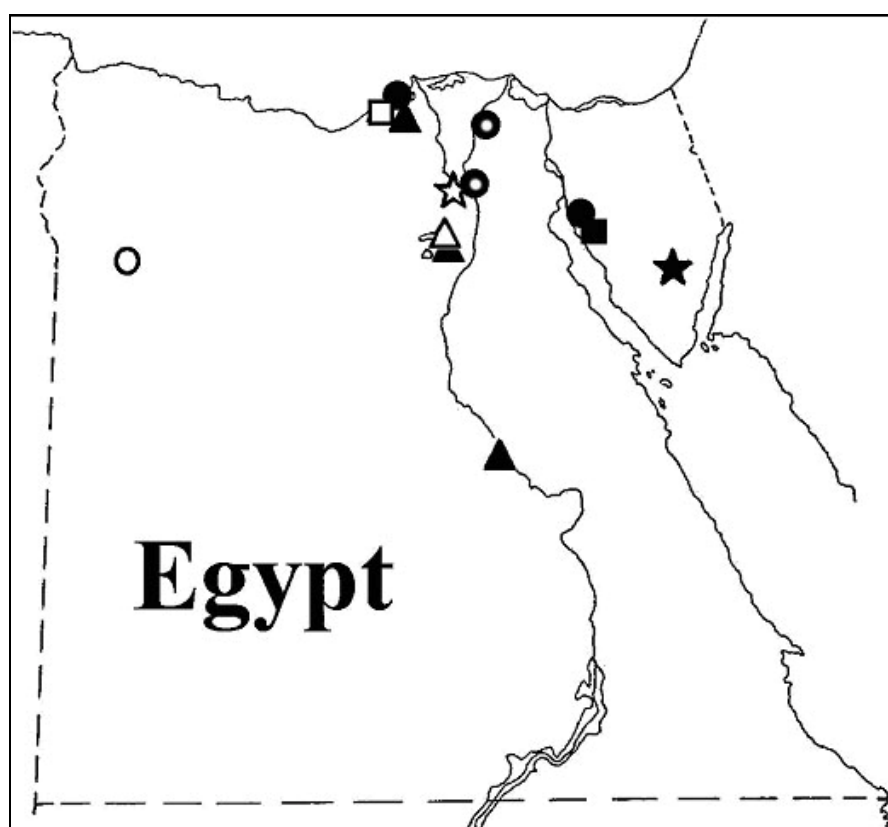
♀ TL $1\frac{1}{3}$ line [= 2.82 mm]. The cephalothorax, falces, maxillae, labium, and sternum of this spider are of a dull orange-yellow colour, the legs and palpi being pale straw-yellow, and the abdomen dull whitish brown. The *cephalothorax* is short, broad behind, and strongly constricted laterally at the caput; the normal indentations are tolerably strongly marked; and the height of the clypeus is equal to half that of the facial space; the highest point (looked at sideways) is at the (thoracic junction, whence it runs by an evenly curved slope to the clypeus, the hinder slope not being very abrupt; the clypeus is furnished with some minute tubercles, each of which was probably furnished with a bristly hair; but if so, these had been rubbed off before this description was made. The eyes are large, seated on black tubercular spots, and occupy the whole width of the fore part of the caput; the hind lateral and central eyes form a slightly curved row, whose convexity is directed forwards; those of the central pair are as nearly as possible contiguous to each other; and each is separated by rather less than its diameter's distance from the hind lateral nearest to it; the hind laterals have a strong sideway and backward direction, and each is very near, but not quite contiguous to its fore lateral eye; the interval between the fore laterals is equal to very nearly two diameters; those of each lateral pair are placed obliquely, and are rather smaller than those of the central pair. The *legs* are rather long and slender, except the femoral joints; their relative length appears to be 4, 1, 2, 3. Whatever their armature may have been, it was entirely rubbed off before this description was prepared. The *palpi* are rather long, slender, and similar in colour to the legs; the digital joint is cylindrical and exceeds in length the radial and cubital joints together. The *falces* are long, tolerably strong and straight, but strongly directed backwards to the labium; and their front surface is thinly covered with minute, and probably pilose, reddish brown tubercles. The *maxillae* and *labium* are forced backwards into a direction perpendicular to the sternum, owing to the strong backward direction of the falces. Their form is thus very difficult to be ascertained, but it appears to be similar to that of the other species of this genus. The *abdomen*, is short, oval in form, considerably convex above, and does not project over the base of the cephalothorax; the connecting pedicle being distinct. Four spiracular springs are plainly visible, the two extra ones being placed not far behind the ordinary pair. The spinners are short those of the inferior are much the strongest.

Description (Translation of Simon, 1882: 236-237).

Genus *Sulsula* : Cephalothorax wide in rear, greatly attenuated forward, nevertheless wide and obtuse at front; flat above, greatly inclined in rear in the posterior third part. – Eyes, six, arranged in a transverse group at least twice wider than long and occupying nearly all the width of the front, two connivent lateral eyes on each side, two medians fairly placed in rear, at the level of the posterior laterals. – Clypeus wider than the anterior eyes and slightly inclined forwards. – Legs lengths, 4, 2, 1, 3, slender; femurs slightly robust, similar and cylindrical; femurs and tibiae armed by thin spines; distance between coxae of the 4th pair greatly narrower than their length; two thin tarsal claws carried by a tarsal segment. – Tegument delicate, furnished with isolated bristles. This genus belongs to the group of the *Oonopides* and is especially neighbor of the genus *Orchestina* E. S. (= *Schaenobates* E. S., not Bl.), of which it differs by the shape of the cephalothorax, the legs of the four pairs equally slender, the median eyes much distant, being placed at the level of the posterior laterals. – The *S. longipes* is the biggest species of the group of the *Oonopides*; its aspect recalls that of a small *Loxosceles*.

Sulsula longipes : ♂. TL 2.7 mm. – Cephalothorax and legs very light testaceous tawny. Abdomen testaceous white, furnished with isolated bristles. – Femur I provided with 2 spines on the anterior side and 2 dorsals; femur II, by only one dorsal; femurs III and IV, by 2 or 3 dorsals; tibiae I and II provided with 3 long lateral spines internal and external. – Pedipalps short; patella wide and convex; tibia longer than the patella, attenuated; small

tarsus, obtuse; bulb wide pyriform, subglobular, prolonged at tip, fairly wide and cylindrical in the first half, very slim and arched in the second.



Map 1. Distribution of recorded oonopid species in Egypt.

- ▲ - *Dysderina scutata* (O. P.-Cambridge, 1876) - Alexandria, El-Faiyum, Sohag.
- - *Gamasomorpha arabica* Simon, 1893 - Ain Musa.
- ☆ - *Ischnothyreus velox* Jackson, 1908 - Cairo.
- - *Opopaea margaritae* (Denis, 1947) - Siwa.
- - *Opopaea punctata* (O. P.-Cambridge, 1872) - Alexandria, Ain Musa.
- ◐ - *Opopaea* sp. - Cairo, Sallant.
- △ - *Orchestina* sp. - Ebshowai
- ★ - *Ovobulbus bokerella* Saaristo, 2007 - Sinai.
- - *Sulsula pauper* (O. P.-Cambridge, 1876) - Alexandria.

Key to Genera and Species of Oonopidae recorded from Egypt

Oonopidae is roughly divided into two groups called Oonopidae loricati and Oonopidae molles (In Latin: loricatus = clothed in mail, harnessed; mollis = soft) according to the chitinization level of their bodies. The members of the loricati group have their cephalothorax closed inside a casing, which has a large frontal opening to allow insertion of the chelicerae and endites bearing the palps as well as lateral openings for the legs while their abdomen is enclosed between dorsal and ventral shields and also spinnerets are partially surrounded by a chitin ring. The members of the second group have no dorsal scutum on abdomen (In Latin: scutum = shield; pl. scuta) and the ventral scutum is much reduced but apparently never totally absent (Saaristo, 2007).

1. Abdomen without dorsal scutum and the ventral scutum is much reduced but apparently never totally absent *Oonopidae molles* ... 2
- Abdomen enclosed between dorsal and ventral shields (scuta) and spinnerets are partially surrounded by a chitin ring *Oonopidae loricati* ... 4
2. Femur IV enlarged. Posterior median eyes located between anterior laterals forming a straight or a slightly procurved line (Fig. 27). Legs without spines ... *Orchestina pavesii*
- Femur IV not enlarged, similar to other femora. Posterior row of eyes recurved, including posterior median eyes 3
3. Legs, especially posteriors, sparingly spiny *Sulsula pauper*
- Legs without spines, claws conspicuously large. Male palp with large, more or less egg-shaped bulbus. Eyes (Fig. 28) *Ovobulbus bokerella*
4. Dorsal scutum covers less than 89% abdominal length *Ischnothyreus velox*
- Dorsal scutum covers entire abdominal length 5
5. Anterior tibiae and metatarsi ventrally fortified by two rows of long slanting spines *Dysderina scutata*
- Legs entirely without spines 6
6. Cephalothorax short, convex, posteriorly abruptly declined. Sternum wide, heart-shaped. Male palp with bulbus separate from cymbium *Gamasomorpha arabica*
- Cephalothorax long, low and flat. Clypeus narrow. Sternum long and oval. Male palp with bulbus fused to cymbium to form cymbiobulbus *Opopaea* ... 7
7. Cephalothorax orange-yellow, ♀ TL 1.3 mm, CI 0.9 (from Fig. 13, Denis, 1947) *Opopaea margaritae*
- Cephalothorax brownish orange, ♀ TL 1.46 (Israel specimen, Saaristo, 2007), 1.66 (Lebanon specimen, Assi, 1982), CI 0.76 (Israel), 0.88 (Lebanon) *Opopaea punctata*

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